CLAIMS

1. A method of implementing an n-th order IIR filter which comprises the steps of:

providing an IIR filter of order less than n; and

operating said IIR filter of order less than n on a time-sharing basis a plurality of times such that said plurality of times multiplied by the order of said IIR filter of order less than n is equal to or greater than n.

2. The method of claim 1 wherein said plurality of times multiplied by said order is equal to n.

3. The method of claim 1 further including providing a decoder coupled to said input terminal.

4. The method of claim 2 further including a providing decoder coupled to said input terminal.

5. An implementstion of an n-th order IIR filter which comprises:

an IIR filter of order less than n; and

means to operate said IIR filter of order less than n on a time-sharing basis a plurality of times such that said plurality of times multiplied by the order of said IIR filter of order less than n is equal to or greater than n.

6. The implementation of claim 5 wherein said plurality of times multiplied by said order is equal to n.

7. The implementation of claim 5 further including a decoder coupled to said input terminal.

8. The implementation of claim 6 further including a decoder coupled to said input terminal.